

REMARKS

Claims 1, 3-21 and 24-32 are pending in the application. In the present response, claims 1, 5, 21, 24, 26, 27, 28 and 31 are amended and claims 4, 25, and 30 are cancelled without prejudice.

Applicants respectfully respond to this Office Action.

102 Rejections

In the Office Action mailed January 23, 2004, the Examiner rejected claims 1, 3, 7, 20, 24 and 27-29 under 35 U.S.C. §102(e) as being anticipated by Sawyer et al. (US 5,920,814).

The Examiner states that *Sawyer* clearly shows and discloses a method for managing multiple Temporary Mobile Station Identities (TMSIs) and a method and apparatus for registering with a plurality of service areas (registration zones; Radio Temporary Mobile Station Identity (R-TMSI) zones) in a radio (wireless) telecommunication network (abstract), comprising: registering with a first mobile switching center/base station 21 (MSC/BS) in a first service area (R-TMSI zone) (figure 1A step 2, column 2 lines 46-65 and column 4 line 67-column 5 line 1); receiving, at a mobile station (MS) TMSI status module 26 (means for receiving) (figure 2), an assignment for a first Temporary Mobile Station Identity (TMSI1) (R-TSMI code) from the first mobile switching center/base station 21 (MSC/BS) (network entity) (figure 1A step 3, column 2 lines 46-65, and column 5 lines 1-3) in response to registration with a first service area (registration zone; R-TMSI zone) (figure 1A step 2, column 2 lines 46-65 and column 4 line 67-column 5 line 1); registering, via means for registering (not shown), with a second mobile switching center/base station 21 (MSC/BS) (network entity) in a second service area (registration zone; R-TMSI zone) (figure 1B step 13, column 2 lines 46-65 and column 5 lines 19-26); and receiving, at the MS TMSI status module 26 (means for receiving) (figure 2), an assignment for a second TMSI2 (R-TMSI code) from the second mobile switching center/base station 21 (MSC/BS) (network entity) (figure 1B step 14, column 2 lines 46-65, and column 5 line 26) in response to registration with the second service area (registration zone; R-TMSI zone) so that the MS is registered in a plurality of service area (registration zone, R-TMSI zone) (figure 1B step 13, column 2 lines 46-65, and column 5 lines 19-26). The Examiner concludes that

Sawyer discloses each and every element of Applicants' claimed invention. Applicants respectfully traverse this rejection.

Applicants respectfully submit that *Sawyer* fails to teach or suggest what is partially recited in the amended claims as follows, for claim 1, "...maintaining a first counter to provide an indication to initiate timer-based registration; and initiating timer-based registration if a value in the first counter exceeds a timer-based registration count value," in claim 24, "...activating a first timer for the first R-TMSI zone upon registration with the second base station; and deactivating a second timer for the second R-TMSI zone upon registration with the second base station," in claim 27, "...activating a first timer for the first R-TMSI zone upon registration with the second base station; and deactivating a second timer for the second R-TMSI zone upon registration with the second base station," and in claim 28, "...means for maintaining a first counter to provide an indication to initiate timer-based registration; and means for initiating timer-based registration if a value in the first counter exceeds a timer-based registration count value."

As such, Applicants claim in claim 1, to maintain a counter to provide an indication to initiate timer-based registration and initiating such timer-based registration if the counter exceeds a value. In claims 24 and 27, Applicants claim the activation of a first timer for a first zone upon registration with a second zone and deactivating a timer associated with the second zone upon registration with the second base station. In claim 28, Applicants claim means for activation of a first timer for a first zone upon registration with a second zone and means for deactivating a timer associated with the second zone upon registration with the second zone.

In contrast, *Sawyer* does not disclose a method or apparatus for maintaining a counter to initiate timer-based registration and initiating the timer-based registration if a value is exceeded.

Therefore, it is Applicants' position that *Sawyer* does not teach each and every element of Applicants' invention as claimed in independent claims 1, 24, 27, and 28 and that these claims are allowable for at least these stated reasons. Further, Applicants believe that dependent claims 3, 7, 20, and 29 should be patentable for at least the same reasons that their independent claims 1, 24, and 28 are allowable.

103 Rejections

The Examiner rejected claims 1, 3-5, 7-21 and 24-31 under 35 U.S.C. §103(a) as being unpatentable over Selby (European Patent Application Publication # 0 260 763) in view of *Sawyer*.

The Examiner states that *Selby* discloses a method for registering with a plurality of registration zones in a wireless communication network (abstract), the method comprising: registering with a first base station in a first temporary zone (column 7 lines 30-42); receiving, via means for receiving 2 (figure 2), an assignment for a first identity from a first network entity (base station) in response to registration with a first registration zone (column 7 lines 31-42); registering, via means for registering 1, 3 (figure 2), with a second network entity (base station) in a second registration zone (column 8 lines 20-56); and receiving, via means for receiving 2 (figure 2), an assignment for a second registration identity from the second network entity in response to registration with the second registration zone (column 8 lines 20-56). Further, that *Sawyer*, discloses a method for managing multiple Temporary Mobile Station Identities (TMSIs) and a method and apparatus for registering with a plurality of service areas (registration zones; Radio Temporary Mobile Station Identity (R-TMSI) zones) in a radio (wireless) telecommunication network (abstract), comprising: receiving, at a mobile station (MS) TMSI status module 26 (means for receiving)(figure 2), an assignment for a first Temporary Mobile Station Identity (TMSI1)(R-TMSI code) from the first mobile switching center/base station 21 (MSC/BS)(network entity)(figure 1a, step 3, column 2 lines 36-65, and column 5 lines 1-3) in response to registration with a first service area (registration zone; R-TMSI zone)(figure 1A step 2, column 2 lines 46-65, and column 4 line 67-column 5 line 1); and receiving, at the MS TMSI status module 26 (means for receiving)(figure 2), an assignment for a second TMSI2 (R-TMSI code) from the second mobile switching center/base station 21 (MSC/BS)(network entity)(figure 1B step 14, column 2 lines 46-65, and column 5 line 26) in response to registration with the second service area (registration zone, R-TMSI zone)(figure 1B step 13, column 2 lines 46-65, and column 5 lines 19-26). The Examiner concludes that it would have been obvious to incorporate the assignment technique disclosed by *Sawyer* in the method taught by *Selby* in order to enhance the efficiency of the system by assigning different TMSIs in different zones.

The Applicants have combined the elements of claim 4 with claim 1, the elements of claim 25 with claim 24 and with claim 27 and the elements of claim 30 with claim 28. As such, Applicants will argue these claims 1, 24, 27 and 28, as amended, against the Examiner's rejections of claims 4, 25 and 30.

Regarding claim 4 and 30, the Examiner states that *Selby*, as modified by *Sawyer* further discloses the steps of: maintaining, via computer system 3 (figure 2), a first counter to provide an indication to initiate timer-based registration (column 15, lines 1-31); and initiating, via computer system 3 (figure 2), timer-based registration if a value in the first counter exceeds a timer-based registration count value (column 15 lines 1-31). As such, it is the Examiner's position the combined *Selby/Sawyer* references disclose each and every element provided in Applicants' claims 4 and 30.

It is Applicants' position that *Selby* discloses a method to test various channels in turn for satisfactory signal strength, starting with valid ones of those stored in storage means 10 and continuing, if necessary, with those stored in storage means 6. If such a channel is found, then, if the received AREA identification corresponds to a valid identification stored in any field 23 of storage means 10, a return is made at 41, changing the channel stored in the relevant field 23 to the one to which the mobile station is currently tuned, if necessary. On the other hand, if such a channel is found but the received AREA identification does not correspond to a valid identification stored in any field 23 of storage means 10, an attempt is made in step 42 to register in the new area. If the registration attempt fails, and the timer 11 times out before a registration message is received, the transmitter and receiver are turned to the next control channel." (*Selby*, column 15, line 32-column 16, line 6). As such, *Selby* discloses a method for testing various channels in turn for satisfactory signal strength and if such a signal strength is determined, to determine if an AREA identification corresponds to a valid identification stored and if not then an attempt is made to register with the base station. All of this is to be accomplished, i.e. a "registration accepted" message received from the base station, within a period of time as measured by timer 11.

Applicants respectfully submit that *Selby*, even if properly combined with *Sawyer*, fails to teach or suggest at least what is partially recited in amended claims 1, "...maintaining a first counter to provide an indication to initiate timer-based registration; and initiating timer-based

registration if a value in the first counter exceeds a timer-based registration count value,” and in claim 28, “...means for maintaining a first counter to provide an indication to initiate timer-based registration; and means for initiating timer-based registration if a value in the first counter exceeds a timer-based registration count value.”

In particular, it is Applicants’ position that *Selby* does not teach nor suggest Applicants’ invention to maintain a first counter to provide an indication to initiate timer-based registration and to initiate the timer-based registration if a value in the first counter exceeds a value. In contrast, *Selby* discloses a method to accomplish determining a stronger signal and obtaining a “registration accepted” message within a period of time determined by a timer. Applicants’ first counter to initiate action for registration is distinct from *Selby*’s disclosure for a method to time-out an action to connect to a stronger signal if a “registration accepted” signal is not received within a time determined by a timer.

For claim 25, the Examiner states that *Selby*, as modified by *Sawyer* discloses that the first registration zone is entered first and the second registration zone is subsequently entered (column 8 lines 20-56), the method further comprising: activating a first timer for the first registration zone upon registration with the second network entity (column 15 line 1-column 21 line 45); and deactivating a second timer for the second registration zone upon registration with the second network entity (column 13 line 1-column 21 line 45). As such, it is the Examiner’s position the combined *Selby/Sawyer* references disclose each and every element provided in Applicants’ claim 25.

Applicants respectfully submit that *Selby*, even if properly combined with *Sawyer*, fails to teach or suggest what is partially recited in amended claims 24 and 27, “...activating a first timer for the first R-TMSI zone upon registration with the second base station; and deactivating a second timer for the second R-TMSI zone upon registration with the second base station.”

Selby does not disclose deactivating a second timer for the second registration zone upon registration with the second network entity (col. 13 line1-column 21 line 45). *Selby* discloses a method to search for a satisfactory control channel signal strength, where suitable action is taken if a registration record has expired (*Selby*, column 14, lines 22-31), which is distinct from Applicants’ claim to deactivate a second timer for the second registration zone.

As for the Examiner's reference for column 15, line 1-column 21 line 45 to disclose activating a first timer for the first registration zone upon registration with the second network entity, Applicants claim activating a first timer for a first R-TMSI zone upon registration with the second base station, that is, such activation/de-activation is coordinated to be at the same time. *Selby* discloses a method to accomplish determining a stronger signal and obtaining a "registration accepted" message within a period of time determined by a timer. Applicants' activating a first timer upon registration with the second base station is distinct from *Selby's* disclosure for a method to time-out an action to connect to a stronger signal if a "registration accepted" signal is not received within a time.

Further, Applicants claim the combined activating and de-activating of timers relating to first and second R-TMSI zones by activating a first timer for a first R-TMSI zone upon registration with a second base station and de-activating a timer in the second R-TMSI zone upon registration with the second base station. As such, Applicants claim to block the functioning of a second timer upon activating a first timer while *Selby* does not disclose such on/off activation of timers.

Therefore, it is Applicants' position that, even if properly combined, *Sawyer* and *Selby* do not teach each and every element of Applicants' invention as claimed in amended claims 1, 24, 27 and 28. Further, Applicants believe that dependent claims 3, 5, 7-21, 26, 29 and 31 should be patentable for at least the same reasons that their independent claims 1, 24, and 28 are allowable.

The Examiner rejected claims 6 and 32 under 35 U.S.C. §103(a) as being unpatentable over *Selby* in view of *Sawyer*, as applied to claims 5 and 31 above, and further in view of *Fehnel* (US 6,064,889).

It is Applicants' position that dependent claims 16 and 32 should be patentable for at least the same reasons that their independent claims 1 and 28 are allowable.

REQUEST FOR ALLOWANCE

In view of the foregoing, Applicants submit that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

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